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H01L 21/316**(21) Application number: **07298736**(22) Date of filing: **16 . 11 . 95**(71) Applicant: **TOKYO OHKA KOGYO CO LTD**(72) Inventor: **SAKAMOTO YOSHIKANE
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NAKAYAMA TOSHIMASA****(54) COATING LIQUID FOR SILICA COATING AND
REPARATION THEREOF****(57) Abstract:**

PROBLEM TO BE SOLVED: To provide a coating liq. for silica coating which is less likely to emit a gas and has excellent storage stability by comprising a particular soln. of an acid hydrolyzate of a trialkoxysilane in an alkylene glycol dialkyl ether as a solvent.

SOLUTION: This coating liq. for silica coating comprises a soln. comprising an acid hydrolyzate of a trialkoxysilane and a solvent of an alkylene glycol dialkyl ether. The coating forming component after removal of the solvent exhibits an wt. increase as

measured by the thermogravimetry or/and has no peak around $3,000\text{cm}^{-1}$ in an infrared absorption spectrum. In this coating liq., the trialkoxysilane is reacted with water to conduct hydrolysis. Water should be used in an amt. of 2.5 to 3.0 based on one mol of the trialkoxysilane from the viewpoint of enhancing the degree of hydrolysis. Use of water in an amt. of less than the lower limit of this amt. range results in enhanced storage stability. In this case, however, the degree of hydrolysis is lowered, resulting in increased org. group content of the hydrolyzate, which causes evolution of a gas during the formation of a coating. On the other hand, when the amt. of water is excessively large, the storage stability is deteriorated.

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